

## RIDS by Document and Section

RID-92L-01	CORE SS 3.4.2	Action Verification Insufficient preCheckAction information.
RID-92L-02	CORE SS 4.2.4.2	invokeAction: Structures Add field for time trigger.
RID-92L-03	CORE SS 4.2.4.3	Action update Inconsistent with Common Model update.
RID-92L-06	CORE SS 4.2.4.4	invokeAction: Extra Information Usage
RID-92L-07	CORE SS 4.2.5.4	preCheckAction: Extra Information
RID-92L-04	CORE SS 5.1.1	Action definitions are not provided by MO protocol.
RID-92L-05	CORE SS 5.1.3	Inconsistent action status handling.
RID-92S-11	CORE SS 5.3.11	Provide more parameter states.
RID-92L-11	COMM SS 3.3	Need more concrete example of DS nodes.
RID-92L-12	COMM SS 3.3.1	Table reference error
RID-92L-13	COMM SS 3.3, Table: DS Addr Flds:	DataURI usage is not clear
RID-92S-09	COMM SS 3.3, Table: DS Addr Flds:	Table column heading edit.
RID-92S-10	COMM SS 3.3, Table: DS Addr Flds:	Clarify the Data URI value reference.
RID-92S-02	COMM SS 4.2.3	Define protection for sensitive data that is brokered.
RID-92S-14	COMM SS 4.2.9	Implementation of definition changes
RID-92S-04	COMM SS 4.2.11.4	Define more error information for subscription lists.
RID-92L-14	COMM SS 4.3	Call for rationale
RID-92L-15	COMM SS 4.3.3	Clarify intent.
RID-92L-16	COMM SS 4.3.4	Structure factoring
RID-92L-19	COMM SS 4.3.5	Make DS recurse instead of clients.
RID-92L-17	COMM SS 4.3.6	Removing empty nodes.
RID-92L-18	COMM SS 4.3.7.1	Add an addLink-helper feature to DS
RID-92L-20	COMM SS 4.3.9	Missing DomainOccurrence and publishService
RID-92L-27	COMM SS 4.3.9.4	Extra Information Usage
RID-92L-28	COMM SS 4.3.11.4	Extra Information Usage
RID-92L-21	COMM SS 5.4.1	Service type number not included in tables.
RID-92L-22	COMM SS 5.4.7	Incorrect link
RID-92L-23	COMM SS 5.4.8	Inconsistent ontology
RID-92L-24	COMM SS 5.4.13	Inconsistent ontology
RID-92L-25	COMM SS 5.4.16	Inconsistent references
RID-92L-26	COMM SS 5.4.18	Inconsistent references
RID-92S-01	MAL SS 4.9.2	"Fixed" ack msg is confusing
RID-92S-03	MAL SS 4.13.7	Allow local PUBSUB pattern variants.
RID-92R-01	MAL SS 6.1.7	Confusion over Service definition components.
RID-92S-05	MAL SS 6.1.7	Service Operation Identifier type is unclear.
RID-92S-06	MAL SS 6.1.7	Ambiguous URI from reference.
RID-92S-07	MAL SS 6.1.7	How will Transport/Encoding versions be registered?
RID-92S-08	MAL SS 6.1.7	Suggestion for readability
RID-92R-02	MAL SS 6.1.12	sourceURI is ephemeral.

## RIDS by Number

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RID-92L-06	CORE SS 4.2.4.4	invokeAction: Extra Information Usage
RID-92L-07	CORE SS 4.2.5.4	preCheckAction: Extra Information
RID-92L-11	COMM SS 3.3	Need more concrete example of DS nodes.
RID-92L-12	COMM SS 3.3.1	Table reference error
RID-92L-13	COMM SS 3.3, Table: DS Addr Flds:	DataURI usage is not clear
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RID-92L-16	COMM SS 4.3.4	Structure factoring
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RID-92L-26	COMM SS 5.4.18	Inconsistent references
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RID-92L-28	COMM SS 4.3.11.4	Extra Information Usage
RID-92R-01	MAL SS 6.1.7	Confusion over Service definition components.
RID-92R-02	MAL SS 6.1.12	sourceURI is ephemeral.
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RID-92S-10	COMM SS 3.3, Table: DS Addr Flds:	Clarify the Data URI value reference.
RID-92S-11	CORE SS 5.3.11	Provide more parameter states.
RID-92S-14	COMM SS 4.2.9	Implementation of definition changes

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-01  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 522.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Core Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Core Services, Section 3.4.2 Action Verification

RID SHORT TITLE: Insufficient preCheckAction information.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Please clarify.

The paragraph provides a pre-check scenario where the client could perform action argument checks. The preCheckAction returns an error if the arguments are invalid. The invokeAction will return the identical error for invalid arguments. What value does the preCheckAction provide in this case? Is it to determine the validity of the arguments to issue an invoke at a later time? If preCheckAction returns false, there is no indication of why. The client may require knowledge of whether the link to the vehicle is down or the vehicle is in an invalid state to accept the command.

The last paragraph indicates the subscription process allows a client to filter on the status information returned. The Action service only has the invokeAction and preCheckAction available. Is the subscription process referring to the VerificationStageList included in the invokeAction arguments?

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-02  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
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DOCUMENT NAME: "Mission Operations - Core Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: CORE, Section 4.2.4.2 invokeAction Structures

RID SHORT TITLE: Add field for time trigger.

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DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

The input structure needs to allow for a time trigger. The execution time is the time the action shall be executed on board the vehicle. This field is optional.

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CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-03  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
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PAGE/PARA NUMBER: CORE, Section 4.2.4.3

RID SHORT TITLE: Action update Inconsistent with Common Model update.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

invokeAction Common Model Updates:

The second paragraph implies there will be multiple updates for for each VerificationStage and the final update when the invoke is complete. The final paragraph of section 4.2.3.2 indicates each stage is reported using a VerificationStateStatus except for the PROGRESS stage which uses VerificationProgressStatus.

The VerificationProgressStatus does not contain the state attribute( IDLE, COMPLETED etc). The PROGRESS interaction pattern in the MAL provides for multiple PROGRESS updates but only one response. Accordingly, there can only be one VerificationStateStatus which is included in the response. This interpretation conflicts with the Common Model Updates paragraph which implies multiple VerificationStateStatus updates per progress updates.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-04  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
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DOCUMENT NAME: "Mission Operations - Core Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: CORE, Section 5.1.1

RID SHORT TITLE: Action definitions are not provided by MO protocol.

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DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Action Definition:

The action arguments are in the structure Common::DefinitionKeyList. This structure is a list of the entityId and definitionId. What are these two attributes (possibly argument name and description)? At a minimum, the parameter type (String, Integer, Floating Point, Time), engineering units, lower limit and upper limit are needed to allow a client to provide the correct value for the argument. A discovery mechanism for the Action Definitions needs to be provided; otherwise, the action definitions will need to be distributed to clients of the Action Service. Configuration may be the intended location for this type of information; however, that limits the interoperability an implementation may have to centers that can agree on a configuration format.

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CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-05  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
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PAGE/PARA NUMBER: CORE, Section 5.1.3 Action Status

RID SHORT TITLE: Inconsistent action status handling.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

The comment for the VerificationStatusList indicates an entry is made for each stage requested in the ActionOccurrence list. VerificationStatus consists of only the Delay and VerificationStage. The VerificationStateStatus contains the VerificationState but this is only present on the final response. With the VerificationState, for each stage, a list containing each entry makes sense. The VerificationProgressStatus only contains the current step of the total steps. The status is not an attribute. Including all the values in the list, as opposed to just the current progress update, seems of little value.

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CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

Below are the xml excerpts for one interpretation of the messages required for this pattern. The Common Model attributes are not completed as that part has not been prototyped. The message header is removed for brevity and the version implementation is not from the latest MAL. Please advise to the correctness of the messages.

InvokeAction Input

```
<action:InvokeActionRequest>  
  <action:actionOccurrence>
```

```
<common:key>
  <common:entityId>CMD1001</common:entityId>
  <common:definitionId xsi:nil="true"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
  <common:occurrenceId xsi:nil="true"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
</common:key>
<common:timestamp>2009-01-09T11:30:38.196-06:00</common:timestamp>
<action:verificationStageList>
  RELEASE RECEIPT AEPTANCE EXECUTION COMPLETION
</action:verificationStageList>
</action:actionOccurrence>
</action:InvokeActionRequest>
```

#### InvokeAction Acknowledgment

```
<action:InvokeActionAck>
  <action:occurrenceKey>
    <common:entityId>CMD1001</common:entityId>
    <common:definitionId></common:definitionId>
    <common:occurrenceId></common:occurrenceId>
  </action:occurrenceKey>
</action:InvokeActionAck>
```

#### InvokeAction Progress Update[1]

```
<action:InvokeActionProgress>
  <action:actionStatus xsi:type="action:ActionStatusType">
    <common:key>
      <common:entityId>CMD1001</common:entityId>
      <common:definitionId></common:definitionId>
      <common:occurrenceId></common:occurrenceId>
      <common:statusId></common:statusId>
    </common:key>
    <common:timestamp>2009-01-09T11:30:38.340550</common:timestamp>
    <action:verificationStageStates>
      <action:verificationProgressStatus
        xsi:type="action:VerificationProgressStatus">
        <action:duration>144</action:duration>
        <action:verificationStage>RELEASE</action:verificationStage>
        <action:stepNumber>0</action:stepNumber>
        <action:ofSteps>4</action:ofSteps>
      </action:verificationProgressStatus>
    </action:verificationStageStates>
  </action:actionStatus>
</action:InvokeActionProgress>
```

#### InvokeAction Progress Update[5]

```
<action:InvokeActionProgress>
  <action:actionStatus xsi:type="action:ActionStatusType">
```



```

<common:key>
  <common:entityId>CMD1001</common:entityId>
  <common:definitionId></common:definitionId>
  <common:occurrenceId></common:occurrenceId>
  <common:statusId></common:statusId>
</common:key>
<common:timestamp>2009-01-09T11:30:38.440215</common:timestamp>
<action:verificationStageStates>
  <action:verificationProgressStatus
    xsi:type="action:VerificationProgressStatus">
    <action:duration>244</action:duration>
    <action:verificationStage>COMPLETION</action:verificationStage>
    <action:stepNumber>4</action:stepNumber>
    <action:ofSteps>4</action:ofSteps>
  </action:verificationProgressStatus></action:verificationStageStates>
</action:actionStatus></action:InvokeActionProgress>

```

## InvokeAction Response

```

<action:InvokeActionResponse>
  <action:actionStatus xsi:type="action:ActionStatusType">
    <common:key>
      <common:entityId></common:entityId>
      <common:definitionId></common:definitionId>
      <common:occurrenceId></common:occurrenceId>
      <common:statusId></common:statusId>
    </common:key>
    <common:timestamp>2009-01-09T11:30:38.457778</common:timestamp>
    <action:verificationStageStates>
      <action:verificationStateStatus xsi:type="action:VerificationStateStatus">
        <action:duration>144</action:duration>
        <action:verificationStage>RELEASE</action:verificationStage>
        <action:state>PASSED</action:state>
      </action:verificationStateStatus>
      <action:verificationStateStatus xsi:type="action:VerificationStateStatus">
        <action:duration>155</action:duration>
        <action:verificationStage>RECEIPT</action:verificationStage>
        <action:state>PASSED</action:state>
      </action:verificationStateStatus>
      <action:verificationStateStatus xsi:type="action:VerificationStateStatus">
        <action:duration>210</action:duration>
        <action:verificationStage>ACCEPTANCE</action:verificationStage>
        <action:state>PASSED</action:state>
      </action:verificationStateStatus>
      <action:verificationStateStatus xsi:type="action:VerificationStateStatus">
        <action:duration>233</action:duration>
        <action:verificationStage>EXECUTION</action:verificationStage>
        <action:state>PASSED</action:state>
      </action:verificationStateStatus>
      <action:verificationStateStatus xsi:type="action:VerificationStateStatus">
        <action:duration>244</action:duration>
        <action:verificationStage>COMPLETION</action:verificationStage>
        <action:state>PASSED</action:state>
      </action:verificationStateStatus>
    </action:verificationStageStates>
  </action:actionStatus>
</action:InvokeActionResponse>

```

</action:verificationStateStatus>  
</action:verificationStageStates>  
</action:actionStatus>  
</action:InvokeActionResponse>

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-06  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

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DOCUMENT NAME: "Mission Operations - Core Services Draft Recommended Standard"  
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PAGE/PARA NUMBER: Section 4.2.4.4

RID SHORT TITLE: invokeAction Extra Information Usage

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

InvokeAction errors

The extraInformation field should be allowed to contain at least the first  
invalid argument in the list for an INVALID error.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended X Editorial \_\_\_\_

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-30  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
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DOCUMENT NAME: "Mission Operations - Core Services Draft Recommended Standard"  
DATE ISSUED: May 2008

PAGE/PARA NUMBER: Section 4.2.5.4

RID SHORT TITLE: preCheckAction Extra Information

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

preCheckAction errors

The extraInformation field should be allowed to contain at least the first  
invalid argument in the list for an INVALID error.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended X Editorial \_\_\_\_

-----  
SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-11  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 3.3

RID SHORT TITLE: Need more concrete example of DS nodes.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Directory Service:

Figure 3-88 provides assistance in understanding the Directory Service nodes; however, a more concrete example with values for the Domain, Network Zone, and Sessions would be helpful. Also, the example could be expanded in increments to demonstrate the sub domain nodes, external nodes and how services are represented in the NodeStatus.

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CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

-----  
SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-12  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
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DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 3.3.1

RID SHORT TITLE: Table reference error

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Service Provider Properties:

First paragraph refers an typo where it refers to Table 3-2 instead of Table 3-22.

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CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-13  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
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PAGE/PARA NUMBER: Table 3-11

RID SHORT TITLE: DataURI usage is not clear

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Directory Service Address Fields:

An explanation of why the DataURI is necessary for Pub/Sub interaction patterns is necessary would be helpful. Is it simply a separation of concerns or performance issue to provide different addresses for the non Pub/Sub interactions? Or, is it acceptable to use the dataURI for identifying the transport layer topics for subscriptions?

-----  
DISPOSITION:

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-14  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
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PAGE/PARA NUMBER: Section 4.3

RID SHORT TITLE: Call for rationale

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Directory Service:

The directory services is significantly more complex in this document than the previous version that went through the review process (September 2007). It is not clear what value the additional complexity provides.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

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SUPPORTING ANALYSIS:

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DISPOSITION:



**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-15  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
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PAGE/PARA NUMBER: Section 4.3.3

RID SHORT TITLE: Clarify intent.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Common Model Usage:

The second paragraph states that each node in the directory service is identified by the OccurrenceKey:

entityId = domain Identifier,  
definitionId = Network,  
occurrenceId = Session Name.

The services are represented with ServiceNodeStatus that contains the ServiceDetails and ProviderInformation. It is not explicitly stated the entityId, definitionId and occurrenceId of the Status serve as the primary key. It appears that this must be true in order to tie the domain and services together.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

-----  
SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-16  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 4.3.4

RID SHORT TITLE: Structure factoring

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Operation createNode:

This operation takes a list of DomainOccurrence as the argument. The OccurrenceKey services as the key. The publish operation takes a list of NodeStatus as the argument. The StatusKey serves as the key for this structure. Consider using the same structure to represent the keys.

-----  
CATEGORY OF REQUESTED CHANGE:  
Technical Fact \_\_\_\_ Recommended X Editorial \_\_\_\_

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-17  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 4.3.6

RID SHORT TITLE: Removing empty nodes.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

removeNode:

Can a domain node be removed that has related services in the ServiceStatusNode? It is not clear whether the services can exist without the nodes. If so, what is the purpose of the nodes?

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-18  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 4.3.7.1

RID SHORT TITLE: Add an addLink-helper feature to DS

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Operation addLink:

The first paragraph indicates the external nodes are added but not created.  
It not clear how a node can be added but not created. Section 4.3.8.3 in the  
Common Model Updates indicate the nodes are created by the addLink operation.

Consider making it the responsibility of the Directory Service to issue the  
addLink calls whenever a publish event is received. This would require a  
DirectoryService that contains Directory Service providers only. It would hide  
the distributed nature of the Directory Services from the service provider  
clients.

Is it possible for an external node to point to another external node? Or  
alternately, do all external nodes point the Directory Service where the  
internal node is hosted?

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended X Editorial \_\_\_\_

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-19  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 4.3.5

RID SHORT TITLE: Make DS recurse instead of clients.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

resolveNodeURI:

The description of this method implies the clients will be responsible for determining the URI of a service provider via iterative name resolution. The caller would be responsible for determining that the node was external and retrieve the address of the directory service that contains the action entry.

Consider a recursive name resolution strategy where the Directory Service is responsible for traversing the external nodes and returning the client the ServiceDetails structure.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended X Editorial \_\_\_\_

-----  
SUPPORTING ANALYSIS:

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-20  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 4.3.9

RID SHORT TITLE: Missing DomainOccurrence and publishService

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

publishService:

Is a DomainOccurrence required for the domain, network and session identifier?  
If the DomainOccurrence is not present, should this operation attempt to  
create it?

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-21  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 5.4.1

RID SHORT TITLE: Service type number not included in tables.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

DomainOccurrence:

The services attribute indicates [that] it is a list of identifiers combining the service area and service type numbers. The service type number is not [a] field on the service operation matrices. (e.g. Table 4-66)

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

-----  
SUPPORTING ANALYSIS:

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-22  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 5.4.7

RID SHORT TITLE: Incorrect link

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

NodeStatus:

The services Field is of type ServiceDetailsInfoList which does not exist.  
The hyperlink goes to ServiceDetailsList

----- CATEGORY OF  
REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

-----  
SUPPORTING ANALYSIS:

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DISPOSITION:



**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-23  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 5.4.8

RID SHORT TITLE: Inconsistent ontology

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

NodeStatusList:

This structure does not follow the naming standard for List structures. It is a list of ServiceStatusNodeStatus. The hyperlink is invalid.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

-----  
SUPPORTING ANALYSIS:

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-24  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 5.4.13

RID SHORT TITLE: Inconsistent ontology

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

ProviderInformationList:

This structure does not follow the naming standard for List structures. It is a list of ServiceInfoProviderInformation. The hyperlink is invalid.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

-----  
SUPPORTING ANALYSIS:

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-25  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 5.4.16

RID SHORT TITLE: Inconsistent references

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

DomainLink:

It is not clear why the DomainLink uses the DomainOccurrence as the key but the ServiceDetails is identified by the StatusKey. The paragraph states the ServiceInfoProviderInformation structure is part of the DomainLink. The table refers to the ProviderInformation structure.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

-----  
SUPPORTING ANALYSIS:

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-26  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 5.4.18

RID SHORT TITLE: Inconsistent references

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

ServiceFilter:

This structure uses the OccurrenceKey to aid in identification of the ServiceDetails but the ServiceDetails uses the StatusKey. Consider avoiding the use of multiple key structures.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

-----  
SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-27  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 4.3.9.4

RID SHORT TITLE: Extra Information Usage

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Publish Service errors

The extraInformation field should be allowed to contain at least the first invalid value when returning an Invalid error. Referenced table 5-22 is not available in the document.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended X Editorial \_\_\_\_

-----  
SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92L-28  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Steven A. Lucord  
CODE: JSC:DD12  
E-MAIL ADDRESS: steven.a.lucord@nasa.gov  
TELEPHONE: 281-483-9711

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 4.3.11.4

RID SHORT TITLE: Extra Information Usage

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Withdraw Service errors

The extraInformation field should be allowed to contain at least the first  
unknownw service that caused the UNKNOWN error

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended X Editorial \_\_\_\_

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92R-01  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Walt Reynolds  
CODE: JSC:DD12  
E-MAIL ADDRESS: walter.f.reynolds@nasa.gov  
TELEPHONE: 281-483-6723

-----  
DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft  
Recommended Standard"  
DATE ISSUED: April 2008

DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

DOCUMENT NUMBER: CCSDS 522.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Core Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: MAL Section 6.1.7  
COMMON Sections 5.3.22, 5.4.1, 5.4.9, 5.8.4, 6  
CORE Section 6

RID SHORT TITLE: Confusion over Service definition components.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Parameters in question:

Service Area Identifier (area)  
Service Identifier (service ID)  
Service Operation Identifier (operation)  
Service Version (version)

The MAL (ss 6.1.7) shows the actual type of these parameters as MAL::Identifier, and MAL::Octet for Version. For the MAL::Identifier based parameters, this allows the use of National Language definitions with UTF-16 encoding (note that the Asian large glyph code point tables repeat various values from the LATIN-1/ASCII map). It appears, however, that enumerated integer values are intended for area, service ID, and operation. This would remedy ambiguous encoding due to linguistics and graphics.

But this is not clearly put forth in all cases:

ServicesFilter (COM ss 5.4.18) and ServiceDetails (COM ss 5.4.9) shows the area

and service ID as MAL::Identifiers, but note that the version is a MAL::Short. Is it therefore possible to register a service with version 256 even though the MAL message header cannot support this.

But SelectionCriteria (COM ss 5.8.4) and UpdateSource (COM ss 5.3.22) shows area and service ID as MAL::Shorts; the list of services found at a node by Directory Services as seen in DomainOccurrence (COM ss 5.4.1) defines a service as the concatenation of numeric values, separated by colons, all expressed as a single URI-like string -- eg. "0::3", for <area>:<service ID>:<version>. (Note that I am assuming the last element is version). The Archive data structures in general (COM ss 5.8.12, 5.8.14, 5.8.16), indicated that the area and service ID data elements are MAL::Shorts as well.

operation can be encoded as either an integer or a string since both are provided in the Service and Operation Summary sections in Core and Common (ss 6). But which do we actually use?

RECOMMENDATION:

Only use integral types for area, service ID, operation. And only use MAL::Shorts in all cases. This prevents any opportunity for ambiguous encodings due to spelling, linguistics and graphics.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

-----  
SUPPORTING ANALYSIS:

-----  
DISPOSITION:



**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92R-02  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: Walt Reynolds  
CODE: JSC:DD12  
E-MAIL ADDRESS: walter.f.reynolds@nasa.gov  
TELEPHONE: 281-483-6723

-----  
CUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft  
Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: MAL Section 6.1.12

RID SHORT TITLE: sourceURI is ephemeral.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Should we use a service definition (area/serviceID/version) instead of the URI?  
The URI may be ephemeral and, therefore, its use could create a stale network  
reference.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended X Editorial \_\_\_\_

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-1  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

-----  
DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: Section 4.5.2 / pg 4-9

RID SHORT TITLE: "Fixed" ack msg is confusing

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

The statement that the "acknowledge message is fixed" needs to be explained. The term fixed is confusing, especially considering the success and error acknowledge messages represent two different forms (the error case contains the StandardError body type while the success case form is unclear).

Does the term "fixed" refer to the entire submit message (header and body) being bounced back as the acknowledge message with response related header changes for the success case? Or does "fixed" refer to a general acknowledge message format (e.g. just the message header reply without the body)? I assume "fixed" doesn't refer to the content of the acknowledge message matching that of the submit message.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

-----  
SUPPORTING ANALYSIS:

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-02  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

-----  
DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft Recommended Standard"  
DATE ISSUED: April 2008

DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

DOCUMENT NUMBER: CCSDS 522.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Core Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: MAL pg 4-30 Figure 4-14;  
COMMON Sections 4.2.3, 4.2.11;  
CORE Section 5.2.10

RID SHORT TITLE: Define protection for sensitive data that is brokered.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

It's unclear how the SM&C Standards address the protection of sensitive  
[data in] entity instances.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

-----  
SUPPORTING ANALYSIS:

[In the] Consumer-Broker-Provider implementation, the Provider is unaware of Consumers' registration and deregistrations, therefore the Broker not only manages the Consumers's notifications, it's also responsible for authorising access to requested items ([...] sensitive information).

The ParameterDefinition structure doesn't define such restrictions (a Consumer's role can be obtained based on the Consumer's authentication credentials from the Login Services). By implementation, sensitive data can

be filtered out at the Provider level if the transmission between it and a Broker requires it, and network security measures can be applied for Brokers requiring access to sensitive data. In the latter case, the Brokers would use a Consumer's roles and a \_list of known\_ sensitive (restricted) parameters to authorize access.

Who owns the ParameterDefinition (the Provider or Provider's Broker)?

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-03  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

-----  
DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: MAL p. 4-33 section

RID SHORT TITLE: Allow local PUBSUB pattern variants.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Allow site-based configuration of different messages for the PUBSUB pattern.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended X Editorial \_\_\_\_

-----  
SUPPORTING ANALYSIS:

In the PUBSUB pattern, the Provider will be unaware of any publish failures, since the publish message is a SEND vs. a SUBMIT pattern. This can be a problem for multiple contributing Providers each contributing updates to a single data stream (i.e. a single data component using a shared Broker). If one Provider fails to publish, it may not be able to react immediately to the error. Publishing errors may be due to an authentication error, an authorization error, a configuration error such as an incompatible parameter definition, or a rejection based on a functional requirement.

The argument against making the publish message a SUMBIT pattern is the amount of traffic it will produce across the space link. The other consideration is the potential need for cooperating Agencies or Centres to inject derived computations into the appropriate data stream(s).

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-04  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

-----  
DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft Recommended Standard"  
DATE ISSUED: April 2008

DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: MAL pg 4-46 Section 4.10.3, pg 6-5 Section 6.1.8;  
COMMON pg 4-20 Sect. 4.2.11.4; CORE Sect. 4.3

RID SHORT TITLE: Define more error information for subscription lists.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

There's no way for a Consumer to know which parameter was in error unless identified in the extraInformation field. MAL Section 4.10.3 states "[the] error structure allows a service specification to add extra information to the error returned but this must be specified by the service operation definition. The Common Model Service's monitorStatus operation definition (section 4.2.11.4) and the Parameter Service's operations definitions (section 4.3) each do not specify an error structure. Users will want to know which parameters are in error.

-----  
CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

-----  
SUPPORTING ANALYSIS:

-----  
DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-05  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

-----  
DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: MAL pg 6-4 Section 6.1.7

RID SHORT TITLE: Service Operation Identifier type is unclear.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

The MessageHeader operation field's comment notes this field to be the "Service Operation Identifier". It's unclear if this is the "Operation Name" or the "Operation Number". It's implied to be the Operation Name; whatever the case may be[, this] needs to be explicitly stated (even if it's either).

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CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-06  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

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REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

-----  
DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft Recommended Standard"  
DATE ISSUED: April 2008

DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: MAL pg 3-2&3 Section 3.2.3, pg 6-4 Section 6.1.7;  
COMMON pg 3-5 Section 3.2

RID SHORT TITLE: Ambiguous URI from reference.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

[...] Clarify the appropriate use of the URI fields [--] mention of how the fields are utilised relative to Domains.

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CATEGORY OF REQUESTED CHANGE:

Technical Fact  X  Recommended      Editorial    

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SUPPORTING ANALYSIS:

When the specified Domain is implicit (generic multi-domain) resulting in multiple PUB-SUB Providers, it isn't obviously clear which URI applies to the notify MessageHeader's URI from field. Based on the MAL Domain description (MAL section 3.2) and the Common Services Directory Service concept, it appears the Broker address can be used when a "shared data provider" name is defined; in this case the notify message can contain items from multiple Providers. But if the Domain spreads across many independent direct Providers and/or Brokers (shared or non-shared), the absolute address of each Provider/Broker will have to be used separately. In this case the Consumer will have to organize its data items according to each Provider's specific domain, then issue separate operations to the appropriate Provider URI (resulting in separate Provider/Broker domain specific replies). It would be useful to discuss these scenarios somewhere and have the aforementioned [...]



sections reference it.

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-07  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

-----  
REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

-----  
DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: MAL p. 6-4 section 6.1.7  
(and in general for structure definitions)

RID SHORT TITLE: How will Transport/Encoding versions be [registered]?

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DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

It is unclear how applications can knowingly select a Service with a compliant Transport/Encoding Standard version. (How will an application know which version of the Transport/Encoding to use, unless the advertised Service version somehow ties the SM&C Service Standard version, the SM&C MAL and Common Standards version, and the Transport/Encoding Standard version?). The comment on the MessageHeader version field should explain what exactly a service version is.

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CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-08  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

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REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

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DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: MAL pg 6-4 Section 6.1.7  
(Generally applies to all structures definitions)

RID SHORT TITLE: Suggestion for readability

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DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

As a reference, it is easier on an implementor to have enough structure details available with the structure's definition. As is, the implementor has to search through the documents for the details. It would be very helpful to have detailed structure field descriptions vs. generalized comments alone. Where applicable, descriptions should discuss how the field supports interoperability (cases in point, the MessageHeader's URItO/URIfrom fields, and Service version fields discussed in previous RID's). Some fields at least deserve a section reference for further details.

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CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-09  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

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REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

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DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: COMMON pg 3-5 Table 3-1

RID SHORT TITLE: Table column heading edit.

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DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Under the Comment column of the "Data URI" row, the reference "shared data provider" should immediately be followed with "(broker)" as was done on the next row.

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CATEGORY OF REQUESTED CHANGE:

Technical Fact \_\_\_\_ Recommended \_\_\_\_ Editorial X

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-10  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

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REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

-----  
DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: COMMON p. 3-5 Table 3-1

RID SHORT TITLE: Clarify the Data URI value reference.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

Under the Comment column of the "Shared data provider name" row, it states "... then the Data URI value of named provider shall be used". If the "if clause" holds, then the Data URI value used will be empty (NULL). Is this correct? This comment needs clarification. I assume the following sentence is what was intended: "The field is used to identify a shared data provider (broker) when this field contains a value and the Data URI field is empty. When the Data URI contains a value it takes precedence over the shared data provider value."

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CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

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DISPOSITION:

**\*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM**

AREA RID NUMBER: 92S-11  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

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REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

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DOCUMENT NUMBER: CCSDS 522.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Core Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: CORE pg 5-16 Section 5.3.11

RID SHORT TITLE: Provide more parameter states.

-----  
DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

It's unclear how to map the generic UNEXPECTED/LOW/HIGH state to the specific check states based on the current set of structures (e.g. HIGH: Out-of-Limits High or Off-Scale High; LOW: Out-of-Limits Low or Out-of-Scale Low; UNEXPECTED: to spacecraft/ground specific check states).

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CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended      Editorial     

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SUPPORTING ANALYSIS:

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DISPOSITION:

:w \*Informal\* REVIEW ITEM DISPOSITION (RID) INITIATION FORM

AREA RID NUMBER: 92S-14  
SUBMITTING ORGANIZATION (Area, WG): NASA/JSC/OTF

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REVIEWER'S NAME: John E. Stevens  
CODE: JSC:DD12  
E-MAIL ADDRESS: john.stevens@nasa.gov  
TELEPHONE: 281-483-6476

-----  
DOCUMENT NUMBER: CCSDS 521.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Message Abstract Layer Draft Recommended Standard"  
DATE ISSUED: April 2008

DOCUMENT NUMBER: CCSDS 521.1-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Common Services Draft Recommended Standard"  
DATE ISSUED: April 2008

DOCUMENT NUMBER: CCSDS 522.0-R-2 RED BOOK  
DOCUMENT NAME: "Mission Operations - Core Services Draft Recommended Standard"  
DATE ISSUED: April 2008

PAGE/PARA NUMBER: COMMON, CORE, MAL

RID SHORT TITLE: Implementation of definition changes

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DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)

How do Configuration Service changes impact the respective Parameter and Check Services definitions? (I assume Consumers/Brokers will need to continuously monitor/react to potential configuration changes.)

What happens if the parameter definitions changes in real time (e.g. a parameter is removed)? would the current subscription be rejected? or would the notify messages keep updating (in this case without the modified parameters)? Would the consumer be required to monitor the parameter definitions, then react to the change (e.g. deregister the subscription list containing the deleted parameter then register the list again minus the deleted parameter)?

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CATEGORY OF REQUESTED CHANGE:

Technical Fact   X   Recommended        Editorial       

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SUPPORTING ANALYSIS:  
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DISPOSITION: